

***United States Court of Appeals
for the Second Circuit***



**APPELLANT'S
BRIEF**

ORIGINAL

76-7134

United States Court of Appeals
FOR THE SECOND CIRCUIT

B

U. S. PHILIPS CORP.,

Plaintiff-Appellee

v.

NATIONAL MICRONETICS INC., ET AL.,

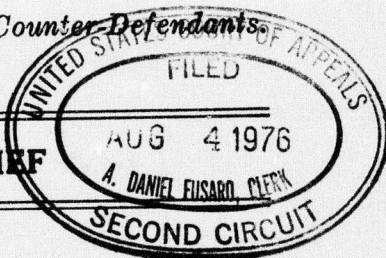
Defendants-Appellants,

v.

NORTH AMERICAN PHILIPS CORPORATION and
N. V. PHILIPS GLOEILAMPENFABRIEKEN,

Counter-Defendants.

APPELLANTS' BRIEF



JOHN M. CALIMAFDE
Attorney for Defendants-Appellants
60 East 42nd Street
New York, N.Y. 10017

Of Counsel:

STEPHEN B. JUDLOWE
HOPGOOD, CALIMAFDE, KALIL,
BLAUSTEIN & LIBERMAN

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U. S. PHILIPS CORP.,
Plaintiff-Appellee,
v.

NATIONAL MICRONETICS INC., ET AL.,
Defendants-Appellants,
v.

NORTH AMERICAN PHILIPS CORPORATION and
N. V. PHILIPS GLOEILAMPENFABRIEKEN,
Cross-Defendants-Appellees.

APPELLANTS' BRIEF

Statement of the Issues

1. Is a method patent valid which claims no more than filling a space and bonding parts together using the well-known capillary process where capillarity had been used repeatedly for such purposes in the prior art—including the very magnetic recording head context at issue.

2. Did the District Court err when it found the patent valid on the basis of a distinction over the prior art which is not recited in the claims?

Statement of the Case

Nature of the Case, the Course of the Proceedings Below, and the Decision of the District Court

This is an appeal from so much of a judgment of the District Court for the Southern District of New York, (Robert J. Ward, Judge), holding valid certain claims of U. S. Patent No. 3,246,383, to Peloschek et al., and finding those claims infringed.

This action was commenced on March 2, 1971 by plaintiff, U. S. Philips Corporation, asserting infringement as assignee of three United States Patents: the one mentioned above, and Nos. 3,024,318 to Duinker et al., and 3,145,453. The complaint sought an injunction and an accounting for damages against National Micronetics, Inc., and personally against its President, Ned W. Buoymaster (A-33a).

The defendants by their answer denied infringement, and challenged the validity of all three patents on the grounds of obviousness and indefiniteness. In addition, defendants counterclaimed against plaintiff and counterclaim-defendants, N. V. Philips and North American Philips Corporation, for patent misuse and violation of the antitrust laws (A-33a).

Prior to trial, plaintiff withdrew the infringement claim as to Patent No. 3,145,453. The counterclaims were severed and stayed pending the outcome of the patent infringement action. The case was tried by Judge Ward, without a jury, beginning June 10, 1975, and continued for about 7 trial days through June 20, 1975.

On January 27, 1976, the District Court rendered an Opinion constituting its findings of fact and conclusions of law (A31a-80a). The Court found Patent No. 3,024,318 to Duinker et al., invalid for "obviousness" under 35

U.S.C. 103; and, Patent No. 3,246,383, to Peloschek et al. (hereinafter Peloschek), valid and certain claims thereof infringed. The Court also dismissed the complaint as to the individual defendant.

Judgment under Rule 54(b) of the F.R.Civ.P. was entered on February 25, 1976 (A81a-83a). Defendants, National Micronetics, Inc. (hereinafter Micronetics) and Ned W. Buoymaster, filed a Notice of Appeal on March 17, 1976, from that part of the judgment sustaining the Peloschek patent. Plaintiff filed no appeal from the portion of the judgment holding the Duinker patent invalid, or the judgment dismissing the complaint as to the individual defendant.

Although the District Court found certain claims of the Peloschek patent valid and infringed*, and others valid, but not infringed**, this appeal is limited to the issue of validity of the Peloschek patent.

**The District Court's Opinion
Relating to the Peloschek
Patent**

The Court recognized that the validity of the Peloschek patent was far from clear (A-65a, 68a), and stated what was within the "mechanical skill of the calling" (i.e., what was "obvious" under 35 U.S.C. 103):

"The mechanical skill of the calling consists then, in using capillary action to fill voids the precise dimensions of which are unimportant." (A-65a)

* * *

"The crucial feature, in the Court's view is the use of capillary action to fill a preset gap of precise, reproducible dimensions. * * *. All of the prior art references

* Claims 1-4, 6, and 8-11 (A-74a).

** Claims 5, 14 and 15 (A-74a).

disclose the use of capillary action to fill random voids. In none were the dimensions of the voids of great importance." (A-65a)

Thus, the District Court rationalized, it was obvious to fill gaps (voids) by capillary action where the precise dimensions were unimportant, but it is patentable if the precise dimensions are important. According to the decision, the public is free to fill voids by capillary, but if dimensions are assigned to those very same voids, plaintiff may exclude the public for a period of 17 years from using the standard capillary process to fill those same old voids.

Moreover, the "crucial feature" upon which the Court rested validity of the patent is not even alluded to in the claims, much less "particularly pointed out," or "distinctly claimed," as required by statute (35 U.S.C. 112)*. None of the Claims 1, 4, 6, or 8-11 here involved have a single word regarding "precise" or "reproducible" dimensions. Even more significantly, plaintiff has interpreted its own patent to cover a wide tolerance of 40% variation in gap dimensions.

Statement of Facts

N.V. Philips Work Preceding the Peloschek Patent and a Brief Description of the Technical Background

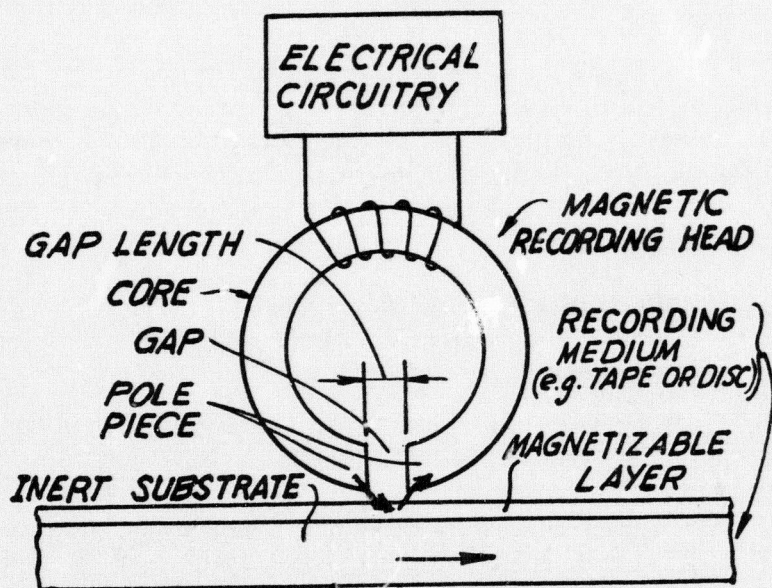
In 1961, counterclaim-defendant, N. V. Philips (Dutch Philips), the large Dutch-based international electronics company, entered into the business of making and selling on a commercial scale, a type of magnetic recording core which had been developed at Dutch Philips by Mr. Duinker during the previous decade (A-120a-132a; A-147a-149a; A-174a; A-198a-199a). For convenience, we shall refer to

* Printed in the Appendix hereto.

the magnetic core made by the Peloschek process as the "Duinker core" as it is the *same core* depicted and claimed in the earlier Duinker patents, one of which, No. 3,024,318 has been found invalid in this litigation. It was this work which lead to the Peloschek patent 3,246,383 at issue. To the extent necessary to an understanding of the process, we shall describe briefly magnetic recording, generally, and the particular type of recording head involved here.

a. Magnetic Recording Generally

To explain the basics of magnetic recording*, reference is made to the figure below which shows a recording head having a core of a magnetic material such as iron or ferrite (non-metal magnetic material) which is continuous (and of arbitrary shape), except for a required space, typically referred to as the core gap. The gap is conventionally filled with glass or other non-magnetic bonding material.



* This brief technical discussion of recording summarizes that presented at trial by plaintiff's expert, Mr. Kornei (A-33a-34a; PX-132, A-348a; A-80a-107a; DX-H, A-518a).

The gap dimension between the opposing end surfaces of the core (pole faces) is the gap length. An electrical winding is wrapped around the core and connected to electrical circuitry. A surface of a magnetic recording medium (magnetic tape, magnetic disc, drum, or the like) is moved past the core gap.

In a recording operation, the electrical circuitry supplies energy to the coil to magnetize the core in an amount and direction dependent upon the applied signal. Because the gap is void of magnetic material and is not a good conductor of magnetization, the magnetization leaves one of the core pole faces, passes through the very small portion of the nearby recording tape adjacent the gap at that time, and returns into the other core pole face, as suggested by the arrows in the figure. This magnetizes the limited area of tape adjacent the gap. Thus, a record is made on the moving tape of the signal pattern supplied by the electrical circuitry.

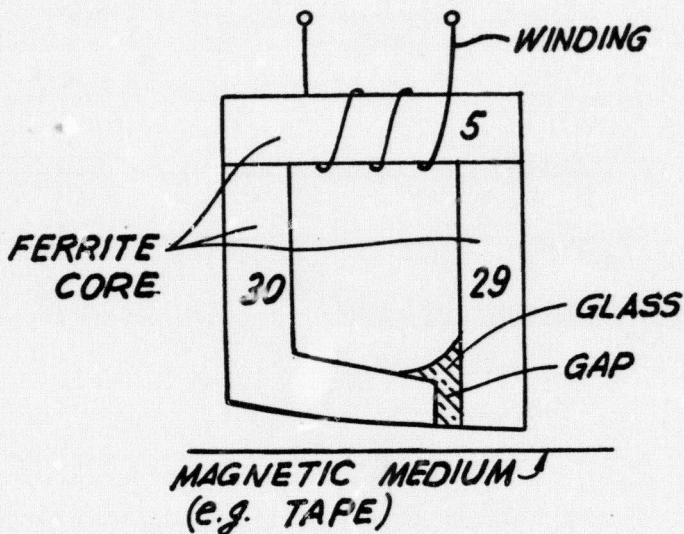
For "playback", a reverse operation occurs where the magnetized areas on the tape pass by the gap and induce a corresponding pattern of magnetization in the core. This, in turn, produces a corresponding electrical signal pattern in the winding which is communicated to the electrical circuitry.

**b. A Particular Form of Prior Art
Glass-Bonded Ferrite Core Made
by Duinker**

For convenience, we have illustrated below* a glass-bonded core made by Duinker at Philips in the 1950's long

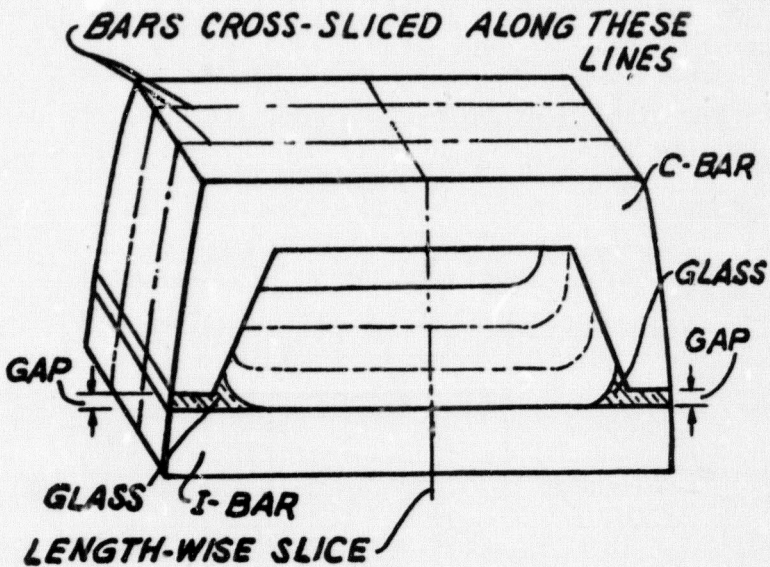
* The figure tracks the Duinker core of Fig. 4 of his '772 prior art patent (DX-J, A-525a) with the keeper (yoke) 5 and the winding of Fig. 1 installed (col. 4, lines 22-25). For comparable cores, see also Figs. 1-3 of DX-J, A-525a; Duinker Patent 3,024,318, found invalid, DX-H, A-518a, and Duinker Patent 3,117,367 DX-K, A-529a.

prior to the Peloschek patent. The core includes a continuous magnetic body (made of connected leg members 29, 30 and 5, for reasons discussed below) having the necessary gap between the pole faces. The magnetic core pieces are made of ferrite—a relatively new magnetic material at the time of Duinker; (A-53a).



For the applications contemplated by Duinker (computer), the gap length had to be minute (on the order of several microns—about 0.1 thousandths of an inch). Duinker, and others, used glass to fill the gap between the ferrite pole faces which also served to bond the pole faces together. That is, the glass served as the gap filler and glue, and thus, the name “glass-bonded ferrite cores.”

The Duinker core used the three connected leg members 29, 30 and 5 as above instead of the single ring because of the manufacturing process by which the composite recording cores were made. Rather than make each core individually, (see figure below), Duinker made the ferrite in long bars, bonded the bars together with glass (at this point the glass-bonded ferrite assembly is referred to as a “bonded bar,” consisting of a “C” bar and an “I-bar”



(see PX-135* or PX-170 (A-443a) for nomenclature). The bonded bar is then cross-sliced and length-wise sliced to produce several glass bonded cores for each bonding operation. (Figure 4 of Duinker '772, DX-J, A525a). The magnetic core is then completed by joining some form of keeper bar onto the "I" and "C" bars.

The earliest Duinker method for filling the gap with glass consisted of placing a glass foil, of a thickness slightly greater than the gap length, between the pole faces, heating the assembly to a temperature within the melting range of the glass and applying a slight pressure to the pole faces until the correct gap length was reached. (A-57a et. seq.).

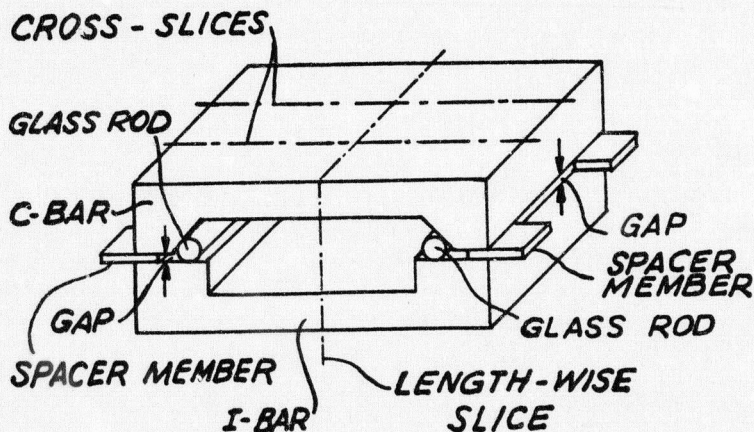
Subsequently, but still earlier than the Peloschek patent, Duinker included in his process the use of spacers between the confronting pole faces to achieve a predetermined or fixed gap length (DX-K, A-529a; A-206a-208a).

* Not printed in Appendix.

The Peloschek Patent in Suit

Peloschek and his co-worker Vrolijk (among others at Philips) were given the technical reports of Duinker and his group, and were assigned the task of finding a more economical gap-filling process to make the magnetic core of Duinker. Within a few months the conventional capillary process was investigated and found satisfactory. (A-123a-131a, 147a-8a, 200a-205a; DX-U, A-557a, DX-T, A-554a).

The patented process is illustrated in the figure below, which shows the assembly before the glass is melted. This figure corresponds to Figure 1 of the Peloschek patent. As before, the ferrite C-bar is placed on top of the I-bar. The



bars are separated and maintained apart by spacer members which have a thickness equal to the desired length for the gap in the final core, exactly as in the earlier Duinker process (DX-K; Fig. 4; A-529a).

Glass material shown in the form of rods is placed adjacent the gaps at each junction area of the I and C bars,*

* It will be recalled that two gaps are formed between the I and C bars so that a double number of cores will result after the bonded bar is sliced along its length and width.

and the assembly is then placed in a furnace and heated to a temperature within the melting range of the glass. The melted glass is drawn into the gaps between the pole faces by capillary action. Pressure (as by simple weights) is applied to the pole faces during heating.

The bonded bar is removed from the furnace, and sliced along its width and length to yield multiple cores for each bonding operation, exactly as in the prior Duinker process.

**The Prior Art Processes Using
Spacers to Define a Gap Between
Ferrite Bars in Recording Cores**

The other patent which was in suit and which the Court found invalid for obviousness, Duinker '318, (DX-H, A-518a), as well as the other Duinker patents are prior art to the Peloschek patent. Duinker '318 discloses a method of

"* * * placing a glass foil which exceeds in size the ultimately desired gap width by a few percent between two confronting polished ferrite gap surfaces. This assembly is then heated to a temperature within the softening range of the glass and pressure is applied until the correct "gap-width is reached. This can be referred to as the 'sandwich' technique." (A-57a *et seq.*)

Duinker '772 (DX-J, A-525a), also discloses the "sandwich" technique, but it additionally discloses the slicing of the finished ferrite-glass assembly to form a multiplicity of cores.*

* The same technique is claimed by Peloschek in claim 6 of the patent in suit, although Peloschek was filed about 6 years later than the effective filing date of this Duinker patent. And, see Volijks A-206a-208a explicitly acknowledging the slicing technique to be old with Duinker.

A third patent, Duinker '367 (DX-K, A-529a), discloses the use of spacers, in which the thickness of the spacers is "substantially equal to the finally desired gap length." (Claim 1 of DX-K, A-529a). The function of the spacers, of course, is to "fix the gap length."** For the first time, in Duinker '367, vis-a-vis his earlier work, the spacer thickness and not the glass size or process parameters (time, temperature or pressure) defined the final core gap.***

The significance of the foregoing three earlier Duinker patents*, is that the *identical* glass-bonded ferrite head, having the same precise gap length, determined in the same reproducible manner, by the use of spacers, was part of the prior art which anteceded Peloschek. Those earlier Duinker patents, although identical in core structure, were different only in not disclosing the use of the capillary technique for flowing the glass into the gap. Instead, those patents disclosed the "sandwich" process in which the glass was initially placed between the magnetic pieces, and the assembly heated while applying pressure to squeeze the glass to the height of the spacer, whereas, in the Peloschek patent, the glass is initially

** The use of shims to fix the gap length by "placing spacing members having a thickness equal to the desired gap length" is claimed by Peloschek in claim 1 of the patent in suit, although Peloschek was filed about four years later than the effective filing date of this Duinker patent. And, see Vrolijk A-206a-208a admitting that the use of shims equal to the gap length is old with Duinker.

*** See A-62a, in which the Court disposed of plaintiff's argument regarding the "difference it perceives between the use of the shims in connection with setting the gap prior to the introduction of the glass in Peloschek and the use of the shims to keep the ferrite slabs apart during compression in Duinker. The Court finds this to be a difference without substance. In both patents the shims are equal or substantially equal to the ultimately desired gap length, they are placed between the two ferrite pieces to keep them a fixed distance apart."

* See A-57a-58a regarding the purport of the prior art Duinker patents.

placed at the gap edge, and the assembly heated to draw the glass into the gap.

Succinctly, then the Peloschek patent is directed to the prior art Duinker core having spacers precisely defined gaps and the use of the conventional capillary process for filling the gap with a non-magnetic material. As stated by the Court, although the patent contains 15 claims, "the claims differ from each other only in minor respect" (A-55a).

The Prior Art Processes Using the Capillary Process to Fill Gaps

Peloschek did not invent capillarity (212a-1 to 212a-9), Capillary action is a well understood force (known long prior to Peloschek) for drawing fluid into a small space. The viscosity of the fluid and the size of the space into which the fluid can be drawn by capillary have long been reduced to a mathematical relationship; i.e., all of the parameters necessary to predict the flow of a fluid by capillarity are mathematically calculable. There is little or no need for experimentation. (A-80a; PX-172, A-444a).

Moreover, capillary for filling small spaces has long been known as a manufacturing process in the electronics and magnetics industries. Indeed, Peloschek was not the first even to apply that technique to a magnetic component having a gap of "fixed dimensions", or to a recording head. The Grant patent (DX-G, A-515a), discloses a magnetic structure consisting of two magnetic pieces separated by a narrow gap of fixed dimension. The two magnetic pieces are bonded together (in fixed spaced relationship) by placing the non-magnetic bonding material adjacent the gap and heating the assembly to the melting temperature of the bonding material. The non-magnetic material melts, "wets" (a form of surface affinity assuring capillary flow) the magnetic elements, and flows into the gap by capillary

action. (A-62a, 63a; A-284a-288a)*. Although Grant does not illustrate spacers for achieving the fixed dimensions, the patent mentions and claims a non-magnetic gap of "fixed dimensions". Moreover, claim 10 of the Peloschek patent makes no mention of spacers, and the claim reads directly and literally on the Grant process; the only difference is that claim 10 describes the magnetic part as being of "sintered oxide ferromagnetic material" (ferrite). The capillary process, however, is identical and the material of the magnetic pieces bonded together by the non-magnetic gap material is irrelevant to the process providing only that it is wettable by the filler material.

In addition to Grant, the DeJean patent (DX-M, A-539a), and the German patent (DX-P, A-549a), disclose the process of bonding together spaced magnetic laminations of a magnetic core by drawing non-magnetic material into the narrow spaces between the spaced laminations by capillary action. The German patent, in particular, is for manufacturing recording heads (A-60a).

For use in the electronics industry, the Reichenbaum patent (DX-I, A-522a) discloses a process for filling a narrow gap between a semiconductor and a base by flowing a bonding material into the gap by capillary action. A small quantity of the bonding material (called solder in the patent) is initially placed adjacent the gap between the two materials, and on melting flows by capillary action into the gap (A-60a).

The prior art Duinker patents '318 (DX-H, A-518a) and '772 (DX-J, A-525a) explicitly show that glass readily wets ferrite (see the moon-shaped meniscus in the core

* The District Court characterized Grant as follows:

"In plain English the patent discloses a structure 'consisting of two magnetic parts separated by a minute permanent non-magnetic gap, which also bonds the two together, created by flowing non-magnetic material between the two parts by capillary action.' " (A-61a).

inner gap, apex area, and at A-62a). Further, a prior art Pfost patent (DX-L, A-533a) also discloses that glass wets ferrite. The fact that glass wetted ferrite completed all the prerequisite knowledge for being able to predict with certainty that glass could be drawn by capillary into the space between the confronting ferrite pole faces.

Thus, capillary was a well-known manufacturing process in the magnetic and related industries for filling minute spaces.

Summary of Argument

The Court erroneously concluded that the Peloschek process was unobvious merely because no one previously had used the conventional capillary process to flow non-magnetic material into the conventional but precisely dimensioned gap. Grant disclosed exactly that. The Court applied a standard of patentability which is far below the Constitutional standard as interpreted by the Supreme Court, and by this Circuit on many occasions.

Further, the Court erred in failing to apply correctly the test of *Graham v. John Deere Co.*, 383 U.S. 1 (1966), as the alleged difference over the prior art on which the District Court rested validity was not specifically claimed.

The Court also failed to judge the claims by the standard of 35 U.S.C. 112, which requires that the basis of any alleged innovation must be distinctly claimed and particularly pointed out in the claims. The claims of the Peloschek patent do not specify the dimensions of the gap; indeed, the claims do not use language that would imply a level of preciseness different from any other gap in related magnetic products. But even if the claims did specify a dimensional exactitude, they would fail for obviousness.

The gap surface material in the ferrite head actually is irrelevant to the process; whether it is precisely or imprecisely dimensioned is equally irrelevant, although it is

difficult to imagine any purposely made gap which is not precisely dimensioned. The material which is flowing doesn't "know" and is not influenced by how accurate or precise the boundaries of the space might be. It flows because certain well established principles of physics dictate the action. The patent is simply directed to the capillary process for filling a gap, and that is why the claims are silent as to any particular dimension or accuracy for the gap. The argument of gap accuracy was a contrived argument for plaintiff's experts to discuss and to divert attention away from the claims which make no mention of gap accuracy whatsoever. If the gap in the final core is of precise dimension, it is because the spacers perform exactly as in the prior Duinker patent '367 to make the gap length precise.

Peloschek simply made use of the existing fund of knowledge, and applied the well-known and commonly used capillary process for flowing glass into the conventional ferrite head gap spacing formed by spacers.

Philips now seeks to exclude the public for a period of 17 years from using the conventional capillary process for filling the conventional gap in the standard magnetic head, quite independent of whether or not the gap is "precise" or "reproducible". It seeks to re-patent and obtain another 17 year monopoly on the Duinker magnetic core, the use of spacers, bonded bar slicing into multiple cores, all claimed by Philips' in its own prior art patents years before. We submit, to permit such extension of monopoly would be a subversion of the patent laws and would frustrate rather than advance science for the benefit of the public.

ARGUMENT

POINT I

The patent is invalid for obviousness.

**The Presumption of Validity
Does Not Exist Here**

The statutory presumption of validity which attaches to an issued patent (35 U.S.C. 282) is premised on the assumption that the Examiner considered the most pertinent prior art. In the instant case, the Examiner did not consider any of the more pertinent prior art relating to the use of the capillary process in the related arts. The patent to Hill (DX-O, A-548a) disclosing the use of the capillary process in the glass-to-metal seal art was not cited by the Examiner. The patent to Reichenbaum (DX-I, A-522a), disclosing the use of the capillary process in the semiconductor electronic arts was not cited by the Examiner. The patents to DeJean (DX-M, A-539a), Feinberg (DX-N, A-543a), and the German patent (DX-P, A-549a) disclosing the use of the same process in the magnetic arts were not cited by the Examiner. Finally, the patent to Grant (DX-G, A-515a), which in the opinion of the Court reads "most directly on the Peloschek method" was not cited by the Examiner. Indeed, the patent Examiner did not cite any patent disclosing the filling of gaps by capillary action.

Thus, in the absence of the patent Examiner having considered the most pertinent prior art, the usual presumption fails or at the very least is severely weakened; *Julie Research Laboratories, Inc. v. Guideline Inst., Inc.*, 501 F.2d 1131, 1136 (2 Cir. 1974); *Zoomar v. Paillard Products, Inc.*, 258 F.2d 527 (2 Cir. 1958).

**The Peloschek et al. Patent is Invalid
As "Obvious" Under 35 U.S.C. 103***

Peloschek simply used an old and well-recognized process to assist in the fabrication of an old product. Starting with the prior art Duinker teachings of the two glass-bonded ferrite bars spaced apart by spacers (the old product), the patentees did nothing more than to substitute the conventional capillary-fill process for the conventional "sandwich" process.

Patents which "combine" or collect together what others have done or what has long been recognized as known are the most suspected "innovations" in the patent law. Recognizing this, the Supreme Court, and this Court have developed high standards which such innovations must meet; *Sakraida v. Ag Pro, Inc.*, — U.S. —, 47 L. Ed. 2d 784, 96 S. Ct. (1976); *Anderson's-Black Rock, Inc. v. Pavement Salvage Co., Inc.*, 396 U.S. 57 (1969); *Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp.*, 340 U.S. 147 (1950); *Paramount Publix Corp. v. American Tri-Ergon Corp.*, 294 U.S. 464 (1935); *Julie Research Laboratories, Inc. v. Guideline Inst., Inc.*, 501 F.2d 1131, 1136 (2d Cir. 1974); *Continental Can Co. v. Old Dominion Box Co., Inc.*, 393 F.2d 321 (2 Cir. 1968).

The Supreme Court has required that the combination of old elements result in something totally unexpected, which it has variously expressed as a "synergistic result" (*Anderson's-Black Rock, supra* at 61) or that the "whole in some way exceeds the sum of its parts" (*Great A&P, supra* at 152).

The Supreme Court's most recent application of these principles is in the *Sakraida v. Ag Pro, Inc., supra*. That case involved a patent for a combination of old elements, never before assembled for purging dairy sheds of manure

* Printed in the Addendum at the last page of this brief.

via a water flush. Sloped-flushed dairy barn floors were old, and water storing tanks with abrupt release elements for causing a water surge were known, but the combination had never before been assembled. Moreover, the patented combination was said by the Court to be "a matter of great convenience, producing a desired result in a cheaper and faster way, and enjoying commercial success." The Court nevertheless found the patent invalid because the combination of old and known elements failed to produce the *sine qua non* for validity in such combination patents, namely, the unexpected result. The Court said, in terms applicable *mutatis mutandis** to the patent involved here:

"* * * Rather, this patent simply arranges old elements with each performing the same function it had been known to perform, although perhaps producing a more striking result than in previous combinations. Such combinations are not patentable under standards appropriate for a combination patent. *A&P Tea Co. v. Supermarket, etc. Co.*, supra; *Anderson's-Black Rock v. Pavement Co.*, supra."
(47 L. Ed. 2d 784, 96 S. Ct.)

In the instant case, the capillary process was notoriously old and widely used in the same and related field for flowing non-magnetic material into small spaces and gaps. The conditions for causing the glass to flow by capillary were common knowledge. The glass-bonded ferrite heads with the same size gaps as involved in the Peloschek process were also in the prior art. There was no reason whatever to discourage the skilled person from using the capillary process for filling the gap. Clearly, there was no "synergistic result" in using the capillary technique

* Although the Peloschek patent is a process patent and the patents in *AdP*, *Anderson's-Black Rock* and *Sakraida* were mechanical patents, the same principles applicable to combinations in general apply. See, e.g., *Paramount Publix*, *infra*.

for flowing glass into the gap of "fixed dimensions". The use of the capillary process was a routine endeavor, and it produced no new or unexpected result. It yielded precisely what any skilled person would have predicted.

Regardless from which vantage point the patented process is examined, the patent fails in disclosing that inventive act for which it is proper to grant a 17 year monopoly. Although the Court found the patent valid, its articulation of the reasons, when scrutinized, left wanting any identifiable inventive act. At most, the District Court indicated that the difference in the Peloschek process was in the preciseness of the gap dimension. Apart from the fact that the dimension is not specified in the claims, the identical gaps of exactly the same dimension are disclosed in the earlier Duinker patents. All that remained was to use the capillary instead of the "sandwich" process to fill the Duinker gap. The Court conceded that step was obvious; and, thus by its own reasoning deprived the patent of any inventive sustenance. Further, the Grant patent discloses the flow of non-magnetic material by capillary action into a gap of "fixed dimensions".

Clearly, even if there were differences between the prior art and the claims herein, such differences do not entitle one to a patent monopoly. As the Supreme Court only this term held in *Dann v. Johnston*, — U.S. —, 47 L. Ed. 692, 96 S. Ct. (1976):

"* * * But the mere existence of differences between the prior art and an invention does not establish the invention's nonobviousness. The gap between the prior art and respondent's system is simply not so great as to render the system non-obvious to one reasonably skilled in the art."

The conclusion that the Peloschek patent was obvious is buttressed by the opinion evidence of the experts of both sides. The District Court found the applicable art whose

skill was to be examined for purposes of the *Graham* test was the "glass and glass bonding art." (A-65a). Defendants' glass bonding art expert, Mr. Gallup, stated his opinion, that the use of the capillary process to fill the core gap would have been obvious and routine to any skilled person (A-289a-293a). Plaintiff's glass expert,* Dr. La Course (principally called to explain some glass tests he conducted relevant to the Duinker patent in suit but of no moment here) did not disagree (A-242a-244a).

**The Patent is Invalid for Claiming
Merely the Application of an Old
Process to an Analogous Subject**

The art had long recognized that placing material alongside a space to be filled, and heating the assembly to melt the material, caused it to flow into and fill the space by capillary action. Moreover, this capillary-fill process was known to be useful in the very context of magnetic recording heads* to fill gaps of "fixed dimensions" (German Patent, DX-P, A-543a; in magnetics Grant DX-G, A-515a; DeJean DX-M, A-539a; Feinberg DX-N, A-543a; and in electronics Reichenbaum DX-I, A-522a). We cannot imagine a gap in a magnetic component purposely formed as in Grant that is not precisely defined.

There was no known impediment to the application of capillary to fill the prior art Duinker core gap of precise dimension exactly as capillary had been used in the prior

* Mr. Kornei, plaintiff's magnetics expert, was frank to disclaim glass expertise (A-116a, 279a).

* But apparently not known to Peloschek and Vrolijk (co-patentees) who were generally aware of capillarity, but not of the specific industrial use shown by Grant and like patents discussed *supra*, at pp. 12-13. Philips never conducted a prior art search to learn of the available methods of flowing glass into small spaces (A-202a). In testing the patent for obviousness, however, they are charged with such knowledge; *David & David, Inc. v. Myerson*, 388 F.2d 292, 294 (2 Cir. 1968).

art to fill gaps. When Peloschek tried it, it worked exactly as was predictable. "It is only the occasion which is new, the use itself is merely analogous"; *Heald v. Rice*, 104 U.S. 737, 754 (1881).**

It has long been accepted that in any art the skilled man is expected to apply an existing tool in a new context for a predictable result when the new context calls for that predictable result. Such a step requires only that understanding of existing situations which marks men as being skilled in the art. There is nothing creative about it. It uses only existing knowledge of means and ends. The freedom of the art to take such a step, whether or not it ever was exercised in the past, is as jealously protected by the patent law, as is the monopoly right to a true invention: *A&P case, supra*, 340 U.S. 147, at 152-153. As the Supreme Court recognized as long ago as 1885 in *Blake v. San Francisco*, 113 U.S. 679, at 682:

"It follows from this principle that, where the public has acquired in any way the right to use a machine or device for a particular purpose, it has the right to use it for all the like purposes to which it can be applied, and no one can take out a patent to cover the application of the device to a similar purpose."

Relevant leading-case applications of this principle are: *General Electric Co. v. Jewel*, 326 U.S. 242 (1945); in *Dow Chemical Co. v. Halliburton Oil Well Cementing Co.*, 324 U.S. 320, at 326-328 (1945), the Court said:

"The fact that prior to 1932 no one had apparently thought to use an inhibitor while acidizing an oil well to increase production cannot inject into the Grebe-Sanford process the attributes of an invention. Es-

** The *Heald* and many subsequent cases present yet another basis for invalidating the patent in suit as merely the substitution of one known gap-filling method (capillarity), with its advantages, if any, for another the Duinker "sandwich" technique.

pecially is this so since there is no evidence of any one trying unsuccessfully to inhibit hydrochloric acid for such purposes. He who is merely the first to utilize the existing fund of public knowledge for new and obvious purposes must be satisfied with whatever fame, personal satisfaction or commercial success he may be able to achieve. Patent monopolies, with all their significant economic and social consequences, are not reserved for those who contribute so insubstantially to that fund of public knowledge."

See also, *Condenser Development Corp. v. Davega-City Radio, Inc.*, 108 F.2d 174 (2 Cir. 1939).

An application of this principle to facts that closely parallel the present situation is found in *Paramount Publix Corp. v. American Tri-Ergon Corp.*, 294 U.S. 464, at 469 and 474-476 (1935). The patent there (issued in 1931) was directed to combining a sound and a picture record, with the requisite synchronization, on a single film for "talking movies." The patent was held valid by the lower courts because of the great practical utility and widespread use of the patented process.

No one before had combined the union of sound and picture on film, save for one prior procedure in which the function of the sound record "differed radically." The patent was held invalid by the Supreme Court as being only the application of an "old process to a new and closely analogous subject matter, plainly indicated by the prior art as an appropriate subject of the process," 294 U.S. at 473.

The Peloschek patent is similarly invalid as being only the application of an "old process [capillary] to a new and closely analogous subject [ferrite magnetic core], plainly indicated by the prior art."

**The Patent Is Invalid Under the
Standard of Patentability of This Circuit**

Recognizing the economic impact of the patent monopoly on the public, and the strict guidelines established by the Supreme Court, this Circuit over the years has developed and applied a vigorous standard of nonobviousness; *Lemelson v. Topper Corporation*, 450 F.2d 845, 848 (2 Cir. 1971).

"Our disagreement with the court below on the issue of validity stems from our conclusion that that Court did not apply the rather vigorous standard of nonobviousness mandated by section 103, Graham, and Great Atlantic & Pacific."

In the *Koppers* case, *supra*, at 517 F.2d 1182, 1189, this Court characterized the test of obviousness as "severe." Such standard was the yardstick used by this Circuit in the evaluation of patents directed to such well known and commercially successful products as the zoom lens, the tranquillizer known by the trademark Miltown, and F.M. stereo; *Zoomar, Inc. v. Paillard Products, Inc.*, 258 F.2d 527 (2 Cir. 1958); *Carter Wallace v. Otte*, 474 F.2d 529 (2 Cir. 1972); and *Preuss v. General Electric Co.*, 392 F.2d 29 (2 Cir. 1968). The stature of the "inventions" in each of those cases far overshadowed the routine application of the capillary process *sub judice*, and yet the contribution in each of those patents did not justify the 17 year monopoly conferred by the statute. The notion of prohibiting anyone for a period of 17 years from using the conventional capillary process to fill any void of any size is repugnant to the American attitude on monopolies.

As this Court itself has recognized, long and intensive experimentation does not necessarily result in an innovation that meets the non-obvious standard of 35 U.S.C. 103:

"But this very experimentation is of the essence of the art involved in this lawsuit; it is on the level of

ordinary skill in the art. This is all the more true because the practitioners of this art are, and of necessity must be highly educated, sophisticated persons who generally have at their disposal laboratory facilities and staffs of competent assistants."

The Patent Does Not Satisfy the Secondary Tests of Patentability

In the absence of any meaningful distinction between the claims and prior art, the secondary tests of patentability such as, long felt want, commercial success, and the like, are not particularly probative. *Graham v. John Deere*, 383 U.S. 1 (1966); *Sakraid v. Ag Pro, Inc.*, — U.S. —, 47 L.Ed. 2d 784, 96 S.Ct. (1976). The patent in suit, however, does not even satisfy those sub-tests.

The Court stated "the evidence of the 'secondary' indicia of non-obviousness is meager." (A-67a). The Court, however, erroneously concluded that the issuance of four patents to others was evidence that such others endeavored unsuccessfully during a seven year period to solve the problem. The Court started the period of the "problem" with the filing date of October 4, 1955, of the original Duinker patent. That Duinker patent (DX-H, A-518a) was the other patent in suit, and is directed to the selection of glass and ferrite having similar expansion characteristics. There is *no* evidence that Duinker or anyone else at N.V.Philips (or indeed anywhere else) considered the gap-filling process a "problem" prior to December 1961 when Peloschek was asked to survey the available processes which might be used.

The four patents mentioned by the Court consist of the two later Duinker patents, a patent to Pfof and a patent to Camras. The first of the two later Duinker patents (DX-J, A-525a) was filed in July 1956. That patent is directed to the technique of cutting-up the sections of the glass-bonded ferrite into multiple cores. That patent does not suggest, even remotely, that Duinker considered the

sandwich process a problem; he was only concerned with a manufacturing process for cutting the assembly into cores.

The next Duinker patent (DX-K, A-529a) was filed in July 1958. In that patent, Duinker disclosed the use of spacers to obtain a predetermined gap of fixed dimensions. There is no mention in the patent that the gap-filling process caused any problems.

The patent to Pfost (DX-L, A-533a), filed in April 1961, is assigned to Ampex Corp., a major manufacturer and user of magnetic heads. The patent is directed to the manufacture of glass-bonded ferrite heads, and also discloses the sandwiched process. There is no mention that Ampex considered the sandwich process as problematic. Indeed, it can be assumed from the fact that Ampex applied for this patent that Ampex considered the sandwich process preferable to the capillary process; there is no evidence to the contrary.

That leaves the patent to Camras (PX-146, A-358a), which was filed in December 1959 by Armour Research Foundation of Illinois. That patent is also directed to the glass-bonded ferrite head, and again, there is no indication that Camras considered the sandwich process a problem, or that he was seeking a different process.

Thus, the conclusion by the Court that the issuance of four patents over six years constitutes evidence of others attempting to solve the problem is not supported by logic, and most assuredly not by the record.

Indeed, the record is directly to the contrary. The important prior art '366 patent to Duinker (DX-K, A-529a), which showed for the first time the use of spacers to define the gap (and which thus permitted movement of the glass from inside the gap to the outside edge thereof where it previously served this purpose) did not issue until 1964. It was thus unavailable to those in the art—except for Peloschek and Vrolijkx at Philips who were given Duink-

er's reports expressly including the use of spacers (p. 11, *supra*). Thus, uniquely armed with the Duinker's spacer idea, Peloschek quickly came to the capillary gap-filling technique. The Duinker '367 patent, filed years earlier than the application leading to the Peloschek '383 patent in suit, is, of course, prior art; *Hazeltine Research Corp. v. Brenner*, 252, 304 (1965).

There is simply no evidence that the art was not able, if it desired, to apply the capillary process to the ferrite magnetic core, or because some problem stood in the way. Very often the non-doing is because no one person concerned with the matter had all of the available relevant knowledge that would have made the solution obvious* or because there is no call for exertion of the art's full skill.** The possible explanations are many; but to the extent that one can ever explain why something was not done, the history of this subject shows it was for the usual reasons just stated.

The real "secondary indicia" inquiry strongly negates non-obviousness here. The capillary flow process was conceived in December 1961 and essentially lay fallow until 1967-1969 when IBM began selling computer memories with glass-bonded cores, and IBM's competition of necessity soon followed. There clearly was no long felt want answered by the Peloschek process.

The lack of merit or "acclaim" accorded the Peloschek patent was further manifested by plaintiff's offer of licenses under the patent to over a dozen magnetic core manufacturers, large (e.g., Burroughs Corp., Ampex, 3M, Sperry Rand) and small. Not one took a license under the Peloschek patent (A-263a-266a; Admissions 59-85, A-579a-582a).

* See *Formal Fashions Inc. v. Braiman Bows, Inc.*, 369 F.2d 536, at 539 (2 Cir. 1966), and *Paramount Publix Corp. v. American Tri-Ergon Corp.*, 294 U.S. 464, at 476 (1935).

** See *Paramount, supra*, 294 U.S. at 474-477.

POINT II

The district court erred when it found the Peloschek patent valid on a basis which was neither particularly pointed out nor distinctly claimed.

The patent statute, 35 U.S.C. 112, requires that the patent application contain "one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention."

Not a single claim in issue specifies the differences which the Court found to exist over the prior art Grant patent. The claims do not define the configuration of the magnetic members to exclude a circular configuration and the claims do not specify the gap as "predetermined" or "precise" or "reproducible". Indeed, claim 10 of Peloschek does not even include the spacers as a limitation, and, therefore, reads literally on the Grant capillary process.

It is well-settled that for plaintiff to rely on distinguishing features, those features *must* be specified in the claims. According to the *Graham* test, it is the claims which are to be compared with the prior art. In *Koppers Co., Inc. v. S&S Corrugated Paper Mach. Co., Inc.*, 517 F.2d 1182 (2 Cir. 1975), the patent owner argued a synergistic result in a certain feature not mentioned in the claims. This court said at page 1188:

"We cannot accept this argument. In the first place, this particular utility of the combination, though adverted to in the specifications, is not mentioned in the claims, see *A&P Tea Co.*, *supra*, 340 U.S. at 149."

Thus, mention of the advantages or special utility in the specification is not enough; the claims must include the features which are relied upon to distinguish the "invention" over the prior art.

See also, *Julie Research Labs (supra)*; *Kwik Set v. Welch Juice Co.*, 86 F.2d 945, 946 (2 Cir. 1936), "The

claims in suit do not limit the method of making the product and cannot be distinguished thereby"; and *Indiana General Corp. v. Kryswel Corporation*, 421 F.2d 1023, 1032 (2 Cir. 1970).

Thus, the validity of the Peloschek patent cannot be premised on differences over the prior art which are not contained in the claims.

Moreover, the plaintiff's claim of invention in the concept of gap precision is inconsistent with plaintiff's own view of its claims, as reflected by its assertion of infringement by Micronetic's imprecise core gap lengths which vary by 40%.

For example, plaintiff has chosen as illustrative of the accused cores, to test validity and infringement, Micro-netics' model 30155 core having an acceptable 200 micro-inch (u") variance in gap length (400u" to 600u") with a nominal 500u" length—a variation of 40%; model 30309 (read gap—50u" tolerance on 125u" nominal dimensions), and model 30104, 40u" tolerance on 100u" nominal, both with 40% non-precise, gap size requirements (A-69a). Thus, plaintiff has construed the claims to cover imprecisely sized gaps for purposes of infringement, but construes the claims as implicitly including the limitation of preciseness to avoid the prior art.

A patentee may not enlarge his claims to cover an alleged infringement while contracting the claims to avoid the prior art; *Fife Mfg. Co. v. Straford Engineering Co.*, 299 F.2d 223 (7 Cir. 1962); *Skirow v. Roberts Colonial House Inc.*, 361 F.2d 388 (7 Cir. 1966). A patent claim is not a "nose of wax which may be turned and twisted in any direction.", *White v. Dunbar*, 119 U.S. 47, 51 (1886).

Thus, the subject matter of the Peloschek patent claims is exactly what the Court found to be obvious. The Court erred when it relied upon differences over the prior art to sustain the validity of the Peloschek patent which are not

found in the claims in suit. Under the established principles the claims are invalid.

Conclusion

The portion of the judgment of the District Court holding the Peloschek patent valid and infringed should be reversed and the case remanded to the District Court for the entry of a judgment declaring the Peloschek patent invalid.

Respectfully submitted,

JOHN M. CALIMAFDE
Attorney for Defendants-Appellants
60 East 42nd Street
New York, N. Y. 10017

Of Counsel:

STEPHEN B. JUDLOWE
HOPGOOD, CALIMAFDE, KALIL
BLAUSTEIN & LIEBERMAN

ADDENDUM:**Pertinent Statutory Provisions.****35 USC § 103. Conditions for patentability; non-obvious subject matter**

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

35 USC § 112. Specification

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

services of three (3) copies of
the within
hereby admitted this 4th day
of Aug, 1976
Morris Nelson
Attorney for Appellee